REMARKS

35 U.S.C. § 103

Claims 1, 9, 10, and 29 have been rejected under 35 U.S.C. § 103 as being obvious over Vandenberg (US 3883449). To the extent the amended claims are deemed unpatentable over the cited prior art, these rejections are traversed for the following reasons.

In the rejection, Example 1 of Vanderberg is cited for its disclosure of polymerization of a halogenated epoxybutane using triisobutylaluminum, water and boron trifluoride as a catalyst mixture. Absent the use of an HFC as a diluent, this is considered to meet all remaining limitations of the rejected claims. The use of HFC is considered obvious in light of the recitation of a few fluorocarbons by Vanderberg. Applicants disagree.

In the teachings of Vanderberg, in disclosing the use of water with an trialkyl aluminium, Vanderberg is *not* disclosing water as an initiator as instantly recited by Applicants. Instead the water is reacting with the trialkyl aluminium to form a different catalyst prior to creation of the polymerization system and the water is not available to act as an initiator in the polymerization process. Attention is specifically directed to column 7, lines 18-20 wherein Vanderberg teaches that the water is reacted with the trialkyl aluminium. The specific reaction occurring is $AlR_3 + H_2O \rightarrow Al_3O_2H_2 + RH$.

To establish *prima facie* obviousness, there 1) must be some suggestion or motivation in the art to modify or combine the references; 2) must be a reasonable expectation of success and 3) the combined references must teach or suggest all the claim limitations. <u>Graham v.</u> Deere

Vanderberg fails to teach or motivate one skilled in the art to provide a polymerization system as recited in independent claims 1 and 28. It is respectfully requested that the rejections be reconsidered and withdrawn.

Nonstatutory Obviousness-type Double Patenting

A. Claims 1, 9, 10, 28, 2-7, 11-18, 20-30, 33, 35-51, and 53 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-35 of US Patent 7414101.

A terminal disclaimer in regards to the above noted patent shall be filed concurrent with this response or shortly thereafter to obviate this rejection. B. Claims 1, 9, 10, 28, 2-7, 11-18, 20-30, 32, 33, 35-40, 48-50, 53, and 59 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-58 of copending US Application 11/728306 (Attorney Docket No. 2007EM051). Applicants respectfully traverse this rejection.

It is held that the instant claims are obvious over the copending claims. The copending claims recite an additional polymorphogenate component; the copending application teachings that the polymorphogenate is preferably selected from molecular oxygen and chalcogenates. This is a taught improvement of the copending application — and is neither claimed nor disclosed by the present application. In the rejection, it is held that the broader instant claims are obvious over the copending claims. Applicants disagree.

The judicially created doctrine of obviousness type double patenting was created to prevent the unjustified extension of a first patent term by claiming obvious variations is in a second application. Herein, this is not the situation. The copending application was not filed first, but instead was filed almost four years later than the present application. Also, upon expiration of a patent that issues on the present application, others may practice what is recited in the claims of the present application; they may simply not practice any patented improvements thereof, such as the recited addition of a polymorphogenate, that are ultimately patented in this or any other copending or later filed applications.

Per MPEP 804.II.B.1, an obviousness type double patent rejection must employ the factual inquiries of a conventional *Graham v. Deere* factual inquiry. No evidence of any prior art and no objective indicia of obviousness or clear evidence to establish why the broader claim would have been obvious has been provided.

The use of a polymorphogenate was not thought of or contemplated at the time of filing of the present invention, and future improvements and inventions such as those disclosed in the copending later filed application should not be a bar to the patentability of the present application, which is based on what was known at the time of filing of the present application. Absent a showing of prior art that renders it obvious to polymerize with a polymorphogenate, this rejection fails to establish any obviousness and, in fact, eviscerates one goal of patent law by discouraging inventors to make any patentable improvements over earlier filed inventions.

At best, the present application dominates the copending application. Per MPEP 804.II, the present broader, earlier filed application simply "dominates" the copending later filed improvement application and domination alone does not give rise to double patenting. Reciting a broader, generic claim, does not automatically render the claim obvious over later filed improvements. In recent years, the Board of Patent Appeals and Interferences has twice reversed obviousness type double patenting cases on the grounds that, without any secondary evidence to support an obviousness argument, a granted patent dominating a later filed application does not give rise to obviousness type double patenting; see *Ex parte Schochetman et al*, Appeal No. 2005-2138 (noted as being non-binding on the Board) and *Ex parte Engel et al*, Appeal No. 2008-0406.

In the Office Action, it is stated that this rejection might not be withdrawn because the copending application recites additional subject matter and obviousness type double patenting rejection "may not be possible" over this application. Applicants do not see that as a hindrance to patentability of this application. The invention in the copending application is the use of the polymorphogenate. It is expected that if the examiner finds prior art that teaches the use of polymorphogenates in the polymerization system recited in the copending application, an appropriate rejection shall be made. Most likely, the examiner would use this application or US 7414101 as a main reference in such a rejection. Not being able to make a rejection in the copending application, or no rejection having been made simply because the application has not been examined yet, fails to make this application unpatentable and should not hold this application hostage.

It is requested that this rejection be reconsidered and withdrawn.

C. Claims 1, 9, 10, 22-25, 32, and 59 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 120-161 of copending US Application 11/628608 (Attorney Docket No. 2004B063). Applicants respectfully traverse this rejection.

The noted claims of the copending application recite a polymerization process that includes a step of combining feed streams. The broader claims of the present application are held to be obvious over the copending claims simply due to the broader scope of the present claims.

Per MPEP 804.II.B.1, an obviousness type double patent rejection must employ the factual inquiries of a conventional *Graham v. Deere* factual inquiry. No such reasoning has been provided, no evidence of any prior art, and no objective indicia of obviousness or clear evidence to establish why the broader claim would have been obvious has been provided. Just as with the above rejection, herein no additional evidence is provided to support the obviousness argument – the broader scope of the present claims are held to be sufficient for obviousness. This is contrary to patent law as established by the Board, the courts, and as directed by the MPEP.

Again, the present application may be viewed as a dominate patent application to the improvement copending application, and being a dominate patent does not give rise to double patenting. The arguments set forth above are applicable herein and are hereby incorporated by reference.

It is requested that this rejection be reconsidered and withdrawn.

D. Claims 28, 2-7, 26, 30, 32, 34-40, 49, 51, and 59 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-31 of US Patent 7402636

The noted claims of Patent '636 recite a polymerization process that includes the addition process of providing an alcohol to the reactor such that the present claims are broader in scope than the patented claims.

As Patent '636 was filed later, but granted first, the two-way test for obviousness-type double patenting is applicable, see in re Berg, if the claims could not have been filed in a single application and there is administrative delay. Applicants respectfully submit that the invention disclosed and recited in Patent '636 could not have been filed in the present application. Not until after the filing of the present application was the usefulness of adding alcohol to the reactor as recited in Patent '636 determined. As Applicants did not have possession of the recited invention in Patent '636 at the time of filing the present application, they could not have included claims thereto in the present application. Regarding administrative delay, applicants have not intentionally delayed any prosecution in the present application. The grant of Patent '636 occurred in less than 18 months from the time of filing

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and was completely unexpected when current pendancy at the USPTO is expected to be closer to 24 months or longer for just a first office action.

In the present rejection, while statements are made regarding how the patented claims differ from the pending claims, thus meeting the first and second factual inquiries under the modified *Graham v. Deere* requirements (see MPEP 804, pg 800-21), the rejection fails to provide any objective indicia of obviousness. The patented claims are held to be obvious simply because they are encompassed by the broader present claims. Again, this is a situation of an earlier filed patent application being a dominate patent. Dominance by an earlier filed patent does not automatically rise to the level of obviousness or double patenting. Again, the fundamental issue is the "unjustified timewise extension of the right to exclude granted by a patent." *In re Schneller*, 158 USPQ 210 (CCPA 1968). Herein, Applicants have not sought such an extension with the filing of the later patent application (now Patent '636), but instead filed an improvement to the current application that was not thought of or contemplated at the time of filing of the present invention. The arguments set forth above in B are applicable herein and are hereby incorporated by reference.

It is requested that this rejection be reconsidered and withdrawn.

Allowable subject matter

The indication of allowability of claim 31 is duly noted and appreciated. As evident by the substantive traversals of the rejections, Applicants believe all of the claims are allowable over both the cited prior art and the later filed patent applications.

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Conclusion

All of the outstanding rejections have been addressed and Applicants respectfully submitted that this application is in condition for allowance. Prompt notice of such is respectfully solicited.

Please charge any deficiency in fees or credit any overpayments during the entire pendency of this case to Deposit Account No. 05-1712.

Respectfully submitted,

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Date

/Nancy T. Krawczyk/ Nancy T Krawczyk Registration No. 38,744 Attorney for Applicant

ExxonMobil Chemical Company Law Technology Department P.O. Box 2149 Baytown, Texas 77522-2149 Telephone No. 281-834-2429 Facsimile No. 281-834-2495